

U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 2 of 12

REMARKS

The present invention relates to a novel lubricating oil composition having excellent antiwear properties and friction reducing properties.

No new matter is added by the current amendments. While the Examiner has objected to previous amendments as new matter, those issues will be discussed below. This paragraph will only discuss the amendments as shown in the mark-up attached to this Response. In Claim 2, the "consisting essentially of" language has been removed. This adds no new matter as the specification clearly speaks to formulations including other additives and therefore has not necessarily limited the claims to these specific additives.

In Claims 1 and 2, the (b)(iii) and (b)(iv) have been restored. As these were in the originally filed Claims 1 and 2, this does not add new matter. The changes to claims 1 and 2, part (c) add no new matter as the claim has been reduced in scope. That is, originally the claim appeared to be able to be up to 100% of calcium salicylate with the additional possibility of the salicylate component being a mixture of magnesium salicylate and calcium salicylate, the latter not being less than 50% of the entire mixture by weight. This amendment removes the case where the salicylate component is entirely calcium salicylate, and requires that it be a mixture of the two.

Objection under 35 U.S.C. § 112 first paragraph

In their response to the previous office action, the Inventors noted that the Markush Group in claim 2 is not indefinite in that one of ordinary skill in the art could easily determine from that claim the scope of the claim. The claim itself was not amended (in this amendment¹) other than to correct spelling errors and to remove an obviously incorrect indefinite article that

¹ This claim had been amended previous to change the number of secondary alkyl carbon groups from having 1 to 18 carbons to having 3 to 18 carbons. Although this claim was also previous amended to remove section (b)(iii) and (b)(iv), they have been restored to their original form with this Office Action and are shown whole for this discussion. This amendment is reflected in the quoted passages.

U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 3 of 12

proceeded a plural noun. The Inventors also reformed the specification for clarity. However, at no time did they add anything to the specification which was not clear from claim 2 itself.

The Examiner rejected the amendment claiming that it introduced "new matter". Specifically the Examiner stated that the 'amendment ... is considered as new matter because it *broadens the claims which contradicts the more narrower scope of originally filed claims ...*' (Emphasis added). Applicants must strongly disagree. Nothing is added that was not clearly stated in original claim 2. The specification may be amended to reflect the clear scope as stated in the claims. MPEP 2163.06(III).

The Markush Group from claim 2 reads as follows (with the corrections noted in standard format):

- (a) ...
- (b) a zinc dialkyldithiophosphate component selected from the group consisting of
 - (i) zinc dialkyldithiophosphate containing primary alkyl groups having 1 to 18 carbon atoms,
 - (ii) a mixture of zinc dialkyldithiophosphate containing [a] primary alkyl groups having 1 to 18 carbon atoms and zinc dialkyldithiophosphate containing secondary alkyl groups having [1] 3 to 18 carbon atoms,
 - (iii) zinc dialkyldithiophosphate containing a primary alkyl group containing 1 to 18 carbon [atomms] atoms, and
 - (iv) mixtures thereof, ...

The only changes to claim 2 are the correction of "obvious errors" as allowed by MPEP 2163.07.

By analyzing the amended specification, it will become clear that there is no matter added that was not part of the original claim 2. The amended specification reads:

... zinc dialkyldithiophosphate represented by the general formula [2] in which

- (a) all of the alkyl groups are primary;
- (b) a mixture of two zinc dialkyldithiophosphates in which all of the alkyl groups of the first zinc dialkyldithiophosphate are primary and [zinc

U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 4 of 12

dialkyldithiophosphate]in which one of the alkyl groups of the second zinc dialkyldithiophosphate is primary and the other alkyl group is secondary;

(c) zinc dialkyldithiophosphate in which one of the alkyl groups is primary and the other is secondary;

(d) zinc dialkyldithiophosphate in which one of the alkyl groups are secondary;

(e) and [a] mixtures thereof.

Indexing has been added for clear reference in the following discussion. Also, the amendment has been presented in standard mark-up format.

It is axiomatic that if each and every indexed member of the amended specification falls within a category originally present in claim 2, then the amendment adds no new matter

Indexed portion (a) of the amended specification is clearly found in the original claim 2 part (b)(i). Indexed portion (b) of the amended specification is clearly found in the original claim 2 part (b)(iv) in that it is a mixture of (b)(iii) and (b)(ii). Indexed portion (c) of the amended specification is clearly found in the original claim 2 part (b)(ii). Indexed portion (d) of the amended specification is clearly found in the original claim 2 part (b)(ii). And portion (e), the mixture of (a) through (d), is not new matter because this paragraph demonstrates that (a) through (d) are not new matter. Since each portion of the amended specification was found in the original claim 2, no part of that amendment is "new matter".

The examiner rejected claims 2 through 5 as not being enabled under 35 USC 112 first paragraph, specifically that they are only enabled in light of the added "new matter". The Applicants must disagree. Clearly as demonstrated above, no new matter has been added, therefore this rejection is incorrect. The Applicants respectfully request that the Examiner remove this rejection.

U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 5 of 12

Rejection under 35 USC 112 second paragraph

The Examiner rejected claims 2 - 5 as being indefinite, noting that the last amendment appeared to have the "secondary alkyl group having 1 to 18 carbon atoms [which] contradicts the meaning that a secondary alkyl group requires the presence of at least three (3) carbon atoms." Applicants apologize in that they did not carry forward a previous amendment changing the limitation of the secondary alkyl group from 1 - 18 carbon atoms to 3 - 18 carbon atoms. This has been corrected and Applicants respectfully request that the Examiner remove this rejection.

Non-statutory double patenting rejection

The Examiner has reiterated her non-statutory obviousness double patenting rejection for claims 1 and 4 - 5. The Applicants note that no specifics for this rejection were given in either the previous office action nor in the present office action. The Applicants also note that in their previous reply they had pointed out specifically how the Examiner has not made the *prima facie* case for obviousness. Since the Examiner has provided no basis for her rejection, nor countered the arguments showing that she has not established the *prima facie* case for obviousness, the Applicants are at a loss as to how to further proceed. The Applicants humbly request that the Examiner provide a basis for her rejection.

Rejection under 35 USC 102(a)

The Examiner reiterated her 35 USC 102(a) rejection over Inoue (USP 5,744,430) without responding to the arguments made by the Applicants pointing out four distinct restrictions in the present invention not found in Inoue. While it is not clear from the present Office Action, the Applicants assume that the Examiner maintains her rejection over the "comprising" language. The Applicants wish to note that claim 1 has "consisting essentially of" language which was present in the original, so if this is the Examiner's concern, it has been addressed

For Claim 2, which incorporates "comprising" language, the Applicants wish to note that Inoue clearly calls for an "ashless" succinimide dispersant (See e.g., Col. 2 line 4, or Col. 4, lines 38-39), indeed naming this feature "essential". The present invention calls for a borated

U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 6 of 12

succinimide. Even with comprising language, the present invention could not and does not encompass Inoue. The Applicants request that the Examiner remove her 102(a) rejection.

Rejection under 35 U.S.C. §103(a)

The Examiner reiterated her rejection of claims 1 and 3-5 as obvious in light of Igarashi (USP 5,281,347) in view of Papay (USP 4,178,256), Umemura (USP 4,692,256) and White (USP 4,330,420). In this Office Action, the Examiner did not address the arguments made by the Applicants in their prior response. In summary, the Applicants had noted four limitations of the current invention not found in the prior art, let alone suggested in the prior art. The Applicants also noted that there was no motivation to combine the prior art to find any of these additional limitations. Thus, the Applicants have established that the Examiner had not made a *prima facie* case under MPEP § 2142.

The Examiner's only response to Applicants arguments is that "[t]he prior art clearly teaches primary and secondary alkyl ZnDTP used in the relative proportions of the instant claims." Applicants respectfully note that the prior art does not address the relative primary and secondary nature of the R³ and R⁴ groups - although the Examiner states that the prior art does teach so, she does not provide a reference. Applicants humbly request that she do so. The Applicants also respectfully note that they have provided three other limitations not addressed by the prior art, not by the Examiner's response. The Applicants respectfully request that she address those additional limitations.

The Examiner rejected claims 2 as obvious in light of Igarashi (USP 5,281,347) in view of Papay (USP 4,178,256), Umemura (USP 4,692,256) and White (USP 4,330,420) further in view of Le Suer (USP 3,254,025). Applicants must respectfully disagree. The Examiner has the burden of proving that a *prima facie* case for obviousness exists. MPEP 2142. Three criteria define the *prima facie* case for obviousness:

1. The Examiner must demonstrate that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings.

U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 7 of 12

2. The Examiner must demonstrate that combining these teaches will result in a reasonable expectation of success.

3. The Examiner must show that all limitations are found or suggested in the prior art.

Id. The Examiner has clearly not provided any facts to establish third element; the *prima facie* case has not been established. The Applicants make no comment on the Examiner's success at the first two elements as the missing third element is sufficient to defeat the *prima facie* case.

The Examiner employs LeSuer for the proposition that borated succinimides have been used in lubricant oils. But the Examiner has failed to demonstrate that LeSuer, or any of the other references, demonstrate any of the other four limitations found in the present invention. Specifically, the Examiner has not shown that the prior art teaches that:

1. the ZDDP be contain only primary alkyl groups or the ZDDP be a mixture of ZDDP with only primary alkyl groups and ZDDP with only secondary alkyl groups.
2. that the carbon groups on the ZDDP be of 1 to 18 carbons for the primary alkyl groups and 3 to 18 carbon atoms for the secondary alkyl groups (later reduced to 3 to 12 carbon atoms for both primary and secondary alkyl groups in claim 4)
3. the alkyl salicylate component comprises 0 - 50% by weight, the balance being calcium.
4. the TBN of the of the lubricant being between 3 to 10.

Neither the Examiner nor the Examiner's cited prior art addresses the first two of the above limitations in any manner. Thus, the Examiner has not established the third element of the *prima facie* case.

Further, even if the Examiner did show that these other limitations were present, LeSuer only would suggest to one of ordinary skill in the art that it is obvious to try a borated succinimide. However, obvious to try does not establish obviousness under 35 U.S.C. 103.

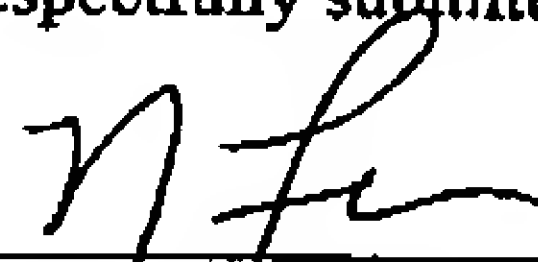
U.S. Serial No. 08/945,705
Reply to Office Action of: June 24, 2003
Family Number: P1995J032

Page 8 of 12

The Examiner has not shown any prior art where the combination of the limitations of the present invention (the four listed in the above paragraph and a borated succinimide) would lead one of ordinary skill in the art to have an expectation of success that they would create "a lubricating oil composition capable of maintaining its friction reducing properties for a prolonged time" as is taught by the current invention's claims. Thus, the Examiner has not established the first element of the *prima facie* case.

Even when combining LeSuer with the previous prior art, the Examiner does not establish the first or third elements of the *prima facie* case. Therefore, the Applicants respectfully request that the Examiner withdraw her 103(a) rejection to claim 2.

Respectfully submitted,



NORBY L. FOSS

Attorney for Applicant(s)

Registration No. 47,571

Telephone Number: (908) 730-3644

Facsimile Number: (908) 730-3649

☒ Pursuant to 37 CFR 1.34(a)

ExxonMobil Research and Engineering Company
P. O. Box 900
Annandale, New Jersey 08801-0900

NLF:sbf
November 24, 2003